CLAIMS:

What is claimed is:

1. A method for reducing boundary effects for images with mixed screen patterns, comprising the steps of:

halftoning an image; and

adjusting boundary regions of said image to minimize brightness deviation of said halftone from an original contone.

2. The method according to Claim **1** for reducing boundary effects for images, wherein adjusting a boundary region further comprises the step of:

performing a low-pass filtering in halftones in said boundary regions, which have one or more than one pixels wide along a boundary.

3. The method according to Claim **2** for reducing boundary effects for images, wherein low-pass filtering further comprises the step of:

choosing a cutoff frequency for said low-pass filtering.

4. The method according to Claim **2** for reducing boundary effects for images, wherein low-pass filtering further comprises the step of:

choosing a cutoff frequency for said low-pass filtering to be around halftone frequency

5. The method according to Claim **2** for reducing boundary effects for images, wherein adjustment further comprises the step of:

comparing said filtering result to said original contone image and generating an error map.

6. The method according to Claim **2** for reducing boundary effects for images, wherein adjustment further comprises the step of:

comparing said filtering result to said original contone image and at pixel (m,n) generating an error map.

7. The method according to Claim 5 for reducing boundary effects for images, further comprising:

adjusting said pixels in said boundary regions to reduce magnitude of errors.

8. The method according to Claim 3 for reducing boundary effects for images, further comprising:

adjusting sequentially said pixels in said boundary regions to reduce magnitude of the errors.

9. The method according to Claim 3 for reducing boundary effects for images, further comprising:

adjusting said pixels by staring from pixels with larger errors to ones with smaller errors in said boundary regions to reduce magnitude of the errors.

10. A method for reducing boundary effects for images with mixed screen patterns, comprising the steps of:

halftoning an image;

adjusting a boundary region of said image to minimize brightness deviation of said halftone from an original contone; and

performing a low-pass filtering in halftones in boundary regions, which have one or more than one pixels wide along a boundary.

11. The method according to Claim 10 for reducing boundary effects for images, wherein low-pass filtering further comprises the step of:

choosing a cutoff frequency for said low-pass filtering.

12. The method according to Claim 11 for reducing boundary effects for images, wherein low-pass filtering further comprises the step of:

choosing a cutoff frequency for said low-pass filtering to be around halftone frequency

13. The method according to Claim 10 for reducing boundary effects for images, wherein adjustment further comprises the step of:

comparing said filtering result to said original contone image and generating an error map.

14. The method according to Claim 10 for reducing boundary effects for images, wherein adjustment further comprises the step of:

comparing said filtering result to said original contone image and at pixel (m,n) generating an error map.

15. The method according to Claim 12 for reducing boundary effects for images, further comprising:

adjusting said pixels in said boundary regions to reduce magnitude of errors.

16. A method for reducing boundary effects for images with mixed screen patterns, comprising the steps of:

means for halftoning an image;

means for adjusting a boundary region of said image to minimize brightness deviation of said halftone from an original contone;

means for performing a low-pass filtering in halftones in said boundary regions, which have one or more than one pixels wide along a boundary;

means for choosing a cutoff frequency for the low-pass filtering.

17. The method according to Claim 16 for reducing boundary effects for images, wherein low-pass filtering further comprises the step of:

means for choosing a cutoff frequency for said low-pass filtering to be around halftone frequency

18. The method according to Claim 16 for reducing boundary effects for images, wherein adjustment further comprises the step of:

means for comparing said filtering result to said original contone image and generating an error map.

19. The method according to Claim 16 for reducing boundary effects for images, wherein adjustment further comprises the step of:

means for comparing said filtering result to said original contone image and at pixel (m,n) generating an error map.

20. The method according to Claim 16 for reducing boundary effects for images, further comprising:

means for adjusting said pixels in said boundary regions to reduce magnitude of errors.